REMARKS

Claims 1, 2, 6, 7, and 11-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Bawendi et al., US Patent 6,501,091 (hereinafter "Bawendi"). Applicants respectfully traverse the rejection. Claim 1 is amended to recite "at least one of the first and second wavelength converting materials comprises a phosphor." This amendment is supported by, for example, paragraphs 18 and 19. At least one of the first and second wavelength converting materials in claim 1 is thus a phosphor. In contrast, Bawendi's materials 18 and 22, cited by the Examiner as claim 1's first and second wavelength converting materials, are not phosphors, rather they are quantum dots. See, for example, column 5 lines 61-67 of Bawendi, which recites "In the embodiment shown in FIG. 1, the primary light first passes through a layer 16 of quantum dots 18 of a material and size adapted to emit green secondary light. The primary light which has not been absorbed by the first layer and the secondary light then pass through a second layer 20 of quantum dots 22 of a material and size adapted to emit red secondary light." (Emphasis added.) Claim 1 is thus allowable over Bawendi as Bawendi does not teach every element of claim 1.

Claims 2, 6, 7, and 11-13 are allowable over Bawendi by virtue of their dependence on claim 1. In addition, regarding claim 6, Bawendi does not teach "the second fluorescent material layer is disposed on a plurality of discrete regions on the semiconductor light emitting device," as both of Bawendi's layers 16 and 20 are continuous layers. Regarding claims 12 and 13, Bawendi does not teach arranging first and second fluorescent material layers "to maximize a luminous equivalent of a combination of the first, second, and third light" as recited in claim 12 and "to maximize color rendering index of a combination of the first, second, and third light" as recited in claim 13. Claims 6, 12, and 13 are thus allowable over Bawendi for these additional reasons.

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SUITE 223
SAN JOSE, CA 95134
(408) 382-0480
FAX (408) 382-0481

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Bawendi. Applicants respectfully traverse the rejection. The Examiner's analysis of Bawendi relative to claim 8 adds nothing to the deficiencies of Bawendi with respect to claim 1, from which claim 8 depends. Claim 8 is thus allowable over Bawendi for at least the same reason claim 1 is allowable over Bawendi. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bawendi in view of Jain, U.S. Patent 6,797,412. Applicants respectfully traverse the rejection. Claims 9 and 10 are allowable over Bawendi and Jain by virtue of their dependence on claim 1.

Claims 1 and 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishii et al., U.S. Patent 6,888,173, hereinafter "Ishii," in view of Tomioka et al., U.S. Patent Application Publication 2002/0140891. Applicants respectfully traverse the rejection. The Examiner cites Ishii's layers 8y, 8m and 8c as claim 1's first and second wavelength converting materials. None of these layers of Ishii is a phosphor, as recited in claim 1, rather they are filters. See, for example, column 2 lines 60-63, which recites "The color filter 8 comprises three color layers comprising a cyan (C) layer 8c, a magenta (M) layer 8m and an [sic] yellow (Y) layer 8y." Ishii thus fails to teach a wavelength converting material comprising a phosphor as recited in claim 1. Tomioka et al. is cited by the Examiner only to teach "various ways of forming color filter layers" and as such adds nothing to the deficiencies of Ishii with respect to claim 1's phosphor. Claim 1 is thus allowable over the combination of Ishii and Tomioka et al.

Claims 14-17 are allowable over the combination of Ishii and Tomioka et al. by virtue of their dependence on claim 1.

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SUITE 223
SAN JOSE, CA 95134
(408) 382-0480
FAX (408) 382-0481

Claims 18-21, 23, 24, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blanchard, U.S. Patent 6,994,453, in view of Ishii. Applicants respectfully

traverse the rejection. The Examiner notes "Blanchard fails to teach or fairly suggest the fluorescent material layer comprising both red and green phosphors to be separate layers for each color. Ishii discloses, in figures 1 and 2 and throughout the disclosure, the use of multiple fluorescent material layers, wherein each layer comprises only one phosphor color. It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the fluorescent material layer of Blanchard by providing separate fluorescent material layer [sic] for each color because it allows for better color temperature to be achieved."

Applicants respectfully submit that the above-quoted passage from the office action mischaracterizes the teachings of Ishii. Contrary to the above statement, Ishii's "color layers" are not phosphor layers, they are filter layers. As a physical matter, filters operate completely differently from phosphors or other fluorescent materials. Fluorescent materials such as phosphors absorb radiation at one wavelength, then nearly immediately reemit radiation, usually at a different wavelength. Filters, in contrast, do not reemit radiation, rather a filter transmits radiation of a particular wavelength and absorbs or reflects radiation of any other wavelength. Since the filters of Ishii act completely differently than the phosphors of Blanchard, a person of skill in the art would not turn to a filter reference such as Ishii to solve any color temperature problems in a phosphor-converted device such as Blanchard. Also, since the color temperature advantage of Ishii pointed to by the Examiner flows from filtering the light, not from the fact that the filters are applied in separate layers, since Blanchard's device does not include any filters, there is no reason to assume that the same color temperature benefit would flow from applying phosphor layers as separate layers. In addition, since filters and phosphors are completely different materials, there is no reason to expect that filters and phosphors can be applied using the same techniques, therefore it is unclear whether

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2635 N. FIRST ST.
SUITE 223
SAN JOSE, CA 95134
(408) 382-0480
FAX (408) 382-0481

the phosphors of Blanchard can even be applied as separate layers, using the techniques described in Ishii. For these many reasons, there is no motivation to combine Blanchard and Ishii and no expectation that Blanchard and Ishii can be combined, thus claim 18 is allowable over the combination of Ishii and Blanchard.

Claims 19-21 and 23-27 are allowable over Blanchard and Ishii at least by virtue of their dependence on claim 18.

Applicants thank the Examiner for indicating that claims 3-5 and 22 are allowable if amended into independent form.

In view of the above arguments, Applicants respectfully request allowance of all pending claims. Should the Examiner have any questions, the Examiner is invited to call the undersigned at (408) 382-0480.

Submitted Electronically

Respectfully submitted,

/Rachel V. Leiterman/

Rachel V. Leiterman
Attorney for Applicants
Reg. No. 46,868

PATENT LAW
GROUP LLP
2635 N. FIRST ST.
SUITE 223
SAN JOSE, CA 95134
(408) 382-0480
FAX (408) 382-0481